

Zoe M. Diaz-Martin

Postdoctoral Associate | Chicago Botanic Garden
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PROFESSIONAL APPOINTMENTS

2020 - present Postdoc, Chicago Botanic Garden
Plant Science and Conservation Department
Advisor: Dr. Jeremie Fant

EDUCATION

2014 – 2020 PhD, Tulane University, New Orleans, LA
Ecology and Evolutionary Biology
Advisor: Dr. Jordan Karubian

2012 BA, Connecticut College, New London, CT
Environmental Science
cum laude, with honors and distinction in the major

FELLOWSHIPS & AWARDS

2020 Tulane University '34 Award for Academic Excellence, Service, and Leadership

2020 George Henry Penn Memorial Award for Outstanding Graduate Research

2016 – 2019 National Science Foundation Graduate Research Fellowship Program

2014 – 2016 Louisiana Board of Regents Graduate Research Fellowship

2009 – 2012 Mellon Mays Undergraduate Fellowship Program

2012 Barbara Shattuck Kohn '72 Environmental Studies Award

GRANTS (\$24,726)

2019 International Palm Society Endowment Fund (\$5,040)

2019 Tulane Ecology and Evolutionary Biology Graduate Student Grant (\$800)

2019 Society for Integrative & Comparative Biology Grants in Aid of Research (\$1,000)

2017 Tulane Ecology and Evolutionary Biology Graduate Student Grant (\$1,912)

2017 Mellon Mays Undergraduate Fellowship Travel and Research Grant (\$5,000)

2016 Tulane Ecology and Evolutionary Biology Graduate Student Grant (\$2,000)

2015 American Philosophical Society Lewis and Clark Fund for Exploration (\$5,000)

2015 Tulane University Stone Center for Latin American Studies (\$3,474)

2013 Travel Grant from the Environmental Studies Program at Connecticut College (\$500)

PUBLICATIONS (* = UNDERGRADUATE; ** = COMMUNITY PARTNER)

Published

2020 Ramirez*, T., D. Cabrera**, **Z. Diaz-Martin**, L. Browne, and J. Karubian. Resource-related variables drive individual variation in flowering phenology and mediate population-level flowering responses to climate in an asynchronously reproducing palm. *Biotropica*. DOI: 10.1111/btp.12792

- 2018 Mahoney*, M., L. Browne, **Z. Diaz-Martin**, J. Olivo**, J. Cabrera**, M. Gonzalez, J. Hazlehurst, and J. Karubian. Fruit removal by large avian frugivores varies in relation to habitat quality in continuous Neotropical rainforest. *Ornitologia Neotropical*. 29: 247–254.
- 2014 **Diaz-Martin, Z.**, V. Swamy, J. Terborgh, P. Alvarez-Loayza and F. Cornejo. Identifying keystone plant resources in an Amazonian forest using a long-term fruit-fall record. *Journal of Tropical Ecology*. 30: 291-301.

In prep

Diaz-Martin, Z., J. Olivo**, D. Cabrera**, and J. Karubian. Temporal and spatial variation in pollination dynamics of a tropical palm.

Diaz-Martin, Z. and J. Karubian. Forest cover increases genetic diversity in tropical palm seedlings.

Ross*, S., **Z. Diaz-Martin**, K. Ferris, and J. Karubian. Landscape scale forest fragmentation decreases heterozygosity in tropical tree.

Torres, L., **Z. Diaz-Martin**, L. Browne, J. Olivo**, D. Cabrera**, and J. Karubian. Fine scale spatial genetic structure of tropical tree across life stages.

CONTRIBUTED TALKS (* = UNDERGRADUATE; ** = COMMUNITY PARTNER)

- 2020 **Diaz-Martin, Z.**, K. Havens, J. Fant, A. Kramer, *et al.* Matchmaker, matchmaker, make me a match! Botanic gardens as endangered species managers. American Public Gardens Association. Virtual conference.
- 2019 **Diaz-Martin, Z.** and J. Karubian. Forest cover drives genetic diversity in a tropical tree. Evolution. Providence, RI.
- 2018 **Diaz-Martin, Z.**, J. Olivo, D. Cabrera, and J. Karubian. How and why do pollination dynamics vary over ecological time scales? A five-year study from a tropical palm. Ecological Society of America. New Orleans, LA.
- 2015 **Diaz-Martin, Z.** and J. Karubian. Dispersión de semillas y fragmentación de bosques tropicales. Simposio Internacional Ciencia y Conservación en la Reserva Mache Chindul. Universidad San Francisco de Quito, Quito, Ecuador.
- 2014 **Diaz-Martin, Z.**, V. Swamy, J. Terborgh, P. Alvarez, F. Cornejo. Testing the keystone plant resources concept in a lowland Amazonian forest. The Annual Meeting for the Association for Tropical Biology & Conservation Conference (ATBC), San José, Costa Rica.

POSTER PRESENTATIONS (* = UNDERGRADUATE; ** = COMMUNITY PARTNER)

- 2019 **Diaz-Martin, Z.** & J. Karubian. Surrounding forest cover impacts genetic diversity in a tropical palm tree. Tulane School of Science and Engineering Board of Trustee Meeting. Tulane University, New Orleans, LA.
- 2018 Ramirez, T.*, **Z. Diaz-Martin**, L. Browne, and J. Karubian. Effects of genetic relatedness and small-scale geographic distance in patterns of intra-population reproductive synchrony of a neotropical palm (*Oenocarpus bataua*). Ecological Society of America. New Orleans, LA.

- 2018 Olivo, J.**; M. Mahoney*, L. Browne, **Z. Diaz-Martin**, J. Cabrera**, M. González, J. Hazlehurst, and J. Karubian. Fruit removal by large avian frugivores varies based on habitat quality. Ecuadorian National Ornithology Conference. Arenillas, Ecuador. Winner of best poster.
- 2018 Cabrera, D.**; T. Ramirez*, L. Browne, **Z. Diaz-Martin**, and J. Karubian. Seed dispersal in leks of the long-wattled umbrellabird (*Cephalopterus penduliger*) increases species diversity compared to nearby sites. Ecuadorian National Ornithology Conference. Arenillas, Ecuador.
- 2016 Russell, A.*, **Z. Diaz-Martin**, D. Cabrera**, J. Olivo**, and J. Karubian. Does flowering density influence the number of pollen donors? Tulane School of Science and Engineering Research Day. New Orleans, LA, USA.
- 2015 Cabrera, D.**; **Z. Diaz-Martin**, L. Browne, and J. Karubian. Using seed traps to describe fruiting phenology of palm communities. World Palm Symposium. Armenia, Colombia.

SPECIALIZED RESREARCH TRAINING

Landscape genomics and bioinformatics. January 2019. Universidad Nacional Autonoma de Mexico, Escuela Nacional de Estudios Superiores, Morelia, Mexico.

Landscape genetic and genomic data analysis using R. November 2017. PR Statistics. Wales, UK.

UNDERGRADUATE TEACHING EXPERIENCE

Co-instructor Introduction to Conservation Genetics (Summer 2019); Tropical Field Biology and Conservation (Summer 2019)

TAship Processes in Evolution (Fall 2018); Ecology lab (Spring 2017); Tropical Field Biology and Conservation (Summer 2015, 2017)

Guest lectures Tropical Biology (Spring 2019); Conservation Biology (Spring 2017); Processes in Evolution (Spring 2016); Theories and Methods in Ecology and Evolutionary Biology (Fall 2015, Spring 2016-2018)

Independent study coordinator Solutions Based Community Conservation in Ecuador (Fall 2017)

SPECIALIZED TRAINING IN TEACHING

2019 Ready, Prep, Teach: Graduate TA and Postdoc Workshop, Center for Engaged Learning and Teaching, Tulane University.

2019 Workshop for Writing Syllabus Objectives and Outcomes, Center for Engaged Learning and Teaching, Tulane University.

2019 Webinar for Engaging Generation Z, Center for Engaged Learning and Teaching, Tulane University.

2015 NSCI 7240 College Teaching Pedagogy, Department of Psychology and Neuroscience, Tulane University.

UNDERGRADUATE MENTORSHIP

Shayna Ross. *Genetic diversity of a long-lived Neotropical palm in a fragmented landscape*. Capstone project and honors thesis, EEB, Tulane University. Spring 2018 – Spring 2019. Winner of the Senior Scholars Award: Environmental Biology.

Rebecca Wang, Caitlin McCormick, Iris Schaitkin. Solutions Based Community Conservation in Ecuador. Independent study/conservation project, EEB, Tulane University. Fall 2017 – Spring 2019.

Annie Russell. *Does flowering density influence the number of pollen donors?* Poster presentation for the Center for Learning and Teaching, Tulane University. Spring 2016.

Mike Mahoney. *Dispersal rates of frugivore guilds in successional forests in Ecuador*. Capstone project and honors thesis. EEB, Tulane University. Spring 2016 – Spring 2018.

Miles Dakin. *Reproductive phenology of Oenocarpus bataua*. Independent study, Tulane University. Spring 2016 – present.

SERVICE & LEADERSHIP

President/Vice-President, Ecology and Evolutionary Biology Graduate Student Organization, Fall 2017 – Spring 2019.

Co-Organizer, EEB Bioinformatics Workshop, Summer 2016.

Ecology and Evolutionary Biology Graduate Student Representative, Tulane Graduate Studies Student Association. 2015 – 2016.

Co-Organizer, Course in Introduction to R in Ecology and Evolutionary Biology. Spring 2015.

RESEARCH & FIELDWORK EXPERIENCE

Organization for Tropical Studies, Tropical Biology: An Ecological Approach, Costa Rica. Summer 2015. Student/participant.

U.S. Fish and Wildlife, Stewart B. McKinney National Wildlife Refuge, Falkner Island, CT. Summer 2012, 2013. Field technician.

Department of Economics, Tourism, and Environment, Seekoeivlei Nature Reserve, South Africa. Spring 2013. Seasonal Intern.

Cocha Cashu Biological Station, Manu National Park, Peru. Summer 2011. Summer research assistant for Dr. Varun Swamy.

OUTREACH EXPERIENCE

Talcott Fine Arts and Museum Academy, Chicago, IL. June 2020. Virtual Career Day presentation to K – 8 grade groups (Spanish and English).

Yonkers Partners in Education, Yonkers, NY. May 2020. Virtual class presentation to high school students.

Fundación para la Conservación de los Andes Tropicales (<https://fcatecuador.org>), Quito, Ecuador. Summer 2017 – present. Active member.

Refugio del Gavilan (<https://refugiodelgavilan.com>), Santa Isabel, Ecuador. Fall 2014 – present. Community liaison, coordinator, program developer.

Girls in STEM at Tulane, Tulane University, New Orleans, LA. Fall 2014 – 2016. Organizer and workshop leader.

La Yecita Primary School, Esmeraldas, Ecuador. Summer 2015. Volunteer English teacher.

Annual Environmental Fair, La Y de la Laguna, Mache-Chindul Ecological Reserve, Ecuador. Fall 2014, 2015. Volunteer and logistical support staff.

Benjamin Franklin Elementary Mathematics and Science School, New Orleans, LA. Fall 2014, 2015. Science Fair Judge (6th-8th grade)

U.S. Fish and Wildlife, Stewart B. McKinney National Wildlife Refuge, Outer Island, CT. Summer 2012. Seasonal environmental educator.

MANUSCRIPT REVIEWS

American Journal of Botany (x1)

Biotropica (x2)

Molecular Ecology (1x)